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Hen Aaron A. Sargent

IN THE MATTER OF THE

APPLICATION OF JAMES HAINES

Administrator of the Estate of

JONATHAN HAINES, DECEASED,

FOR THE

Extension of Letters Patent of said Jonathan Haines.

GIBSON BROTHERS, PRINTERS, WASHINGTON.





HAINES ILLINOIS HARVESTER

To the Hon. Senate and House of Representatives:

Gentlemen—"The policy of the law is to compensate the inventor, and if this object be not attained by a first extension, there would seem to be justice in a second. But this can only be done by act of Congress."

The above remarks were made by Judge McLean, in the case of Bloomer vs. Stolley, (5 McLean's Rep., pp. 160, 161,) and are clear and concise statements of the conditions upon which Congress should predicate their action. The evidence submitted to your honorable body answers fully the points suggested in the decision of this eminent jurist, whose practical mind grasped, as by intuition, the facts in each case before him. It is difficult to decide in all cases what remuneration, or what profits, an invention may be legitimately entitled to, by reason of his disclosure, by an invention that may become the subject of a patent. depends in a great degree upon the importance and general utility of such invention; if in its use and adaptation it is co-extensive with the boundaries of our common country, it is of more value to the country than if limited to a particular locality or State, and the verdict to be given should embrace these conditions. Nearly all the States of this Union, all in a greater or less degree agricultural States, require the use of just such machines as the one invented by Haines, and particularly is this the case in the Southern and Western States, where this machine has been most used. In the former, (the Southern,) it has been or was impossible to introduce them during any portion of the time of the first extension, from causes consequent upon the rebellion, and the complete disruption of nearly all kind of mechanical pursuits and labor, and even to the present moment there is a want of ability, if not of disposition, to embark in the extensive culture of fields, requiring the aid of such laborsaving machines as the one submitted to your consideration. this avenue of sale continued open to Haines, he might have been able to have reaped such advantages from his invention as to have precluded the necessity of this application to your honorable The amount of remuneration or profits to be received by an inventor should be a "reasonable amount;" such is the legal

construction given to that clause of the statute governing extensions.

In determining what is reasonable, the nature of the invention, its general uses, its benefits to that branch of trade or traffic to which it is adapted, and to the public at large, enter largely, if not entirely, into the consideration of the case. If it is apparent that millions of dollars are thus saved by the use of a particular invention, the remuneration and profits should be far greater than if the benefits to the public will aggregate only thousands of dollars. The imagination can hardly conceive, much less determine in dollars and cents, the value to the public of the locomotive, the loom, the telegraph, the cotton-gin, and numerous other inventions that might be specified. Any stated sum might appear fabulous, were it not that the public mind, with common accord, ascribes to them untold worth and value. Approximately is the same true of the subject-matter before you. It is within the memory of nearly all, if not all, of the members of this Committee, when such machines as Harvesters were entirely unknown; while now our fields are covered by these great aids and help to man, performing their work with an intelligence almost human, and with a power that excites our greatest wonder and astonishment.

The prayer for relief herewith presented by the widow and children of Jonathan Haines is worthy of your attention, because it is based on public services really eminent, though unobtrusive in their nature, and unappreciated. The American people owes its proud position in the first rank among nations to its inventors more than to any other one class of its citizens. To them the world owes the telegraph, the marine engine, the cylinder press, the sewing machine, the thousands of minor but scarcely less valuable inventions and improvements in the arts and sciences; and hardly second in importance to any of them, the reaping machine. It is impossible to estimate the material value of these inventions to the public, or to comprehend how any inventor can be overpaid for an invention bestowed upon the public. It is a common fate of meritorious inventors to meet disappointment and defeat. Sometimes it happens that an invention is in advance of the times, when the public wants have not yet prepared for it a favorable reception; the fate of such an inventor is a truly lamentable one-and such was Jonathan Haines. In 1849, notwithstanding the attention of the agricultural population was already turning toward labor-saving machinery, still labor was comparatively cheap, and no very pressing want was felt; the old-fashioned cradle and scythe were still efficient to harvest the yearly crops. It is not difficult, therefore, to see that the invention of a machine striding at one step to the utmost bounds of utility and economy, accomplishing so much, and going so far beyond existing standards, should be misunderstood and unappreciated by the public.

From time immemorial, grain had been cut near the base of the stalks; the machine invented by Jonathan Haines cut it near the heads. By the old method, the mass of straw required to be handled several times before the grain could finally be separated and secured. With this machine, the straw being left standing upon the ground, was not handled at all. With the machine invented by Jonathan Haines, seven hands, (three of whom may be boys,) with the assistance of three wagons and ten horses, could easily cut and secure twenty-five acres of grain per day—a quantity which would require the employment of more than sixty men and eight horses under the good old time-honored methods with the cradle, in vogue up to, and subsequent to the time when this invention was made.

It may be said that no man would hesitate to adopt a method which at once would reduce a certain item of expense to one-ninth its former amount. But such is not the result of experience. The more startling and brilliant are results, the more reluctant is the public mind to believe in their genuineness.

Such an innovation would naturally excite the incredulity and astonishment of a class of men whose faith in machinery is even now not over abundant.

So meritorious is this invention, and so deserving is this application for your bounty, that a plain statement of the merits of the case is the most powerful argument which can be adduced in its favor.

Though this patent has been once extended, still the utmost exertions on the part of the inventor have been unavailing to place the manufacture of his machine on such a footing as to render success assured, especially when it is considered that the late war, and its effects immediately succeeding, covered the greater part of the extended period, and almost annihilated his manufacturing business. He contended until his latest hours against

the prejudices of the agriculturists, stimulated in every way by those who were his rivals in business—the manufacturers of harvesting machines operating in a different way. In this case it was not a question as between different machines of the same class, but between different classes of machines; and when, on the one hand, great numbers and ample capital are in possession of the field, and arrayed against struggling but impecunious merit, it will be easily understood why the contest has been a long one. The statements herewith submitted show that there has been a constant increase in the demand for these machines, and it is estimated that there are at present more than four thousand of them in use. In view of the testimony submitted, it cannot be doubted that the machine is one of present utility. The affiants all agree that the cost of reaping and securing grain, when the Haines machine is employed, is \$1.50 per acre less than with any other machine in use. It is also estimated that each machine is capable of harvesting, say 300 acres, during a single season; and this represents a saving to the public of \$450 per season for every machine which is fully employed; and supposing there to be 4,000 machines in use, we have \$1,800,000 yearly saving to the grain-growing agriculturists who use the Haines machine. There are, however, more than 4,000 machines in use, but they are not all fully employed; and it will not, perhaps, be far from the truth if it is estimated that, to the users of Haines' machines, there is now a yearly saving of \$1,000,000.

The average yearly ratio of increase in the number of machines manufactured during the past seven years is more than 50 per cent.; but adopting that as a reasonable ratio for the next seven years, we shall have manufactured during that period 55,002 machines, representing a yearly saving to the public of \$24,750,900. But each of these machines serves for a number of years, say six, as a low average; we should therefore multiply by six to obtain the actual result, viz: \$148,505,400 saved to the country by the manufacture of these machines during the ensuing seven years. And this amount may be increased by about \$12,500,000, due to the use of these machines during the past twenty-one years, making a total of \$161,005,400. Contrast this material benefit to the public with the \$46,000, one-half of which represents the revenue derived by the inventor therefrom, and which is all he

could boast after twenty-one years of constant personal labor, and the employment of all the capital he could command.

If this invention should now be utterly withdrawn from public use, no member of your honorable body would hesitate to admit that the reward has not been commensurate with the benefits bestowed. But the invention will not be withdrawn from public use. Every year in the future, while wheat and rye and oats are grown in our fields, these machines will serve us. There is nothing hypothetical about these estimates. They are the deliberate opinions of men of sound judgment and practical acquaintance with the subject—men who are personally known to members of your honorable body as being in every way reliable.

It may be supposed that the grant of this extension will impose a burden upon agriculturists; but such cannot be the case. The demand for these machines is not yet, and will not for many years, be so great that it cannot be supplied by a few establishments. The demand, therefore, cannot require that its manufacture should be thrown open to public competition. It is only after a manufacture has been expanded to its utmost limits, when a public necessity has been created, that the manufacturer can presume to impose exorbitant charges for his wares. Until the public necessity has been created, it is the manufacturer's interest to sell his wares at a reasonable rate, for then his prime motive is to extend his market. If, therefore, the prayer of this petition is refused, the effect cannot be to materially cheapen these machines to the public, except at the expense of efficiency and durability.

To you is left the determination of the results in this proceeding, and we invoke your careful and earnest consideration of the merits of this application. These results affect deeply the heirs of a meritorious inventor, the better part of whose life was bound up in this creation of his genius; it was his one thought, one hope, one ambition, to make it a benediction to his brother-man, as well as to furnish him with that reasonable hire of which a laborer is worthy in every vocation.

Respectfully, &c.,

B. F. JAMES,
R. D. O. SMITH,

Counsel for Petitioner

LETTERS PATENT.

[No. 331.]

THE UNITED STATES OF AMERICA,

To all to whom these letters patent shall come:

Whereas Jonathan Haines, of Pekin, Ill. has alleged that he has invented a new and useful improvement in Harvesting Machines (for which letters patent were issued to him dated 27th March, 1849; which letters having been surrendered by him, the same have been cancelled & new letters ordered to issue to him on an amended specification,) which he states has not been known or used before his application has made oath that he is a citizen of the United States that he does verily believe that he is the original and first inventor or discoverer of the said improvement and that the same hath not to the best of his knowledge and belief been previously known or used; has paid into the Treasury of the United States the sum of Fifteen Dollars and presented a petition to the Commissioner of Patents signifying a desire of obtaining an exclusive property in the said improvement and praying that a patent may be granted for that purpose These are Therefore to grant according to law to the said Jonathan Haines, his heirs administrators or assigns for the term of Fourteen years from the said Twenty-seventh day of March one thousand eight hundred and Forty-nine, the full and exclusive right and liberty of making constructing using and vending to others to be used the said Improvement a description whereof is given in the words of the said Haines in the schedule hereunto annexed and is made a part of these presents.

In testimony whereof I have caused these Letters to be made Patent and the Seal of the Patent Office has been hereunto affixed Given under my hand at the city of Washington,

[L. s.] this sixth day of November in the year of our Lord one thousand eight hundred and fifty-five and of the independence of the United States of America the Eightieth.

GEORGE C. WHITING.

Acting Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.

C. MASON,

Commissioner of Patents.

THE SCHEDULE REFERRED TO IN THESE LETTERS PATENT AND MAKING PART OF THE SAME.

To all whom it may concern.

Be it known, that I Jonathan Haines, formerly of Union Grove, in the county of Whiteside, and State of Illinois, but now of Pekin, in the county of Tazewell, and State aforesaid, have invented certain new and useful improvements in Harvesting Machines for Grain or Grass, and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings making a part thereof, in which

Fig. 1 represents view of the entire machine

Fig. 2 is a vertical section taken through the line x x of fig. 1.

Fig. 3 is a plan, and

Fig. 4, a side elevation of one of the slotted fingers, which advance before the sickle, for the purpose of supporting the straw while the knife cuts it off.

Where the same letters occur in the several figures, they denote like parts.

The leading difficulty in all harvesting machines, the cutters of which were raised or lowered by a lever, previous to my invention, was the very great excess of weight on the forward part of the machine, which ultimately came upon the necks of the horses. To obviate this great difficulty, resort was had to an extra truck or pair of trucks forward of the machine, which besides its additional cost, caused the team to be placed so far in advance of the machine as to make it impossible to turn a square corner without backing the team. If the team were harnessed directly to the tongue, and the machine properly balanced on its wheels, a corner could be as readily turned by it as by an ordinary cart, but with the former heavy weight forward, the driver alone could not properly control the machine, and to place an additional attendant on the machine involved additional weight on the machine, at an additional daily cost to the user.

The object of my invention was to avoid these serious consequences, by relieving the team of all undue work, and economizing to the user both in the cost of the machine and the daily expense of using it.

The nature of my invention consists in combining with the frame of a harvesting machine so hung upon a pair of support-

ing wheels, as to be nearly balanced thereon, when on level ground, a hinged-tongue and operating lever, which lever shall be attached to one, and project towards the driver's seat or stand, arranged on the other, so that the driver who is the sole conductor of the machine, may from said stand or seat, raise or depress the cutters at pleasure during the operation of the machine, for cutting the grain or grass at any suitable height above the ground, or for passing over any intervening obstacles. And also in combining with a harvesting machine a conveyor, which first carries the cut grain horizontally across the machine, and then elevates it so as to discharge it into the bed of a wagon driven alongside of the machine, when the conveyor-frame is connected to the bed by a flexible joint, for purposes which will be described.

To enable others skilled in the art to make and use my invention I will proceed to describe the same with reference to the

drawings.

In the accompanying drawings the machine is represented as being mounted upon three wheels, the two in front A' A', sustaining the principal part of the weight, the one behind B, being chiefly designed for steering, and in order that it may the better accomplish that object it is mounted in a vertical post B', which is hung upon hinges, and capable of being turned by a tiller b in manner of the rudder of a vessel.

The horses are harnessed to the whipple-trees a, which are secured by a bolt to the tongue C, and push the machine before them. The tongue C is hinged to the rear end of the square part D, of the frame-work, and the lever E, which projects back from the frame is engaged by means of a catch to the notches in the sides of the post c, erected upon the tongue, this catch being so constructed that it can with ease be disengaged, and re-engaged. The frame D, rests upon the axes of the wheels A A', which form a fulcrum upon which it turns, and the projecting lever E, being attached firmly to this frame, whenever it is raised or lowered, it depresses or elevates the front of the machine, and thus determines the height at which the grain or grass is to be cut; the catch which engages the arm to the notched post c, holding it at any point of elevation at which it may be required to place it. platform C', is placed upon the rear end of the tongue, upon which the driver, who is the sole conductor of the machine stands. convenient to the tiller b, and the lever E, in order that he may

direct the course of the machine, and raise and lower the cutter to accommodate it to the variations in the surface of the ground, or the height of the grain, by this means avoiding both waste of the grain and the inconvenience of cutting too much straw.

The principal frame D, may be made of plank or scantling well framed together. It carries the sickle F, reel G, conveyor H, and the gearing which puts them severally in motion. Upon the wheel A, or upon its axis, a cog-wheel D is secured which takes into and drives the pinion e, (represented in dotted lines,) upon whose axis a pulley f, which through the medium of the belt g, turns the axis h, (fig. 2,) which carries the wheel i (fig. 2,) that drives the conveyor H. To the side of the pulley f a crank-pin K, is secured, which through the connecting rod l, communicates a horizontal vibrating motion to the lever m, which is transmitted to the sickle F, connected by a pivot n, to its front end.

The axis of the pinion e, is capable of sliding longitudinally on its bearings sufficiently far to disengage it from the wheel d, when the machine is required to be moved without putting the conveyor or sickle in motion. For the purpose of disengaging and re-engaging this pinion with facility, the forked end of a rod o, is engaged either to it or the shaft by any of the usual modes, the other end of this rod being jointed to the lever p, which is pivoted to the frame D, at one end and jointed to the rod q at the other, the latter resting upon the lever E and extending back far enough to be within the reach of the conductor; this rod is provided with two catches, which when engaged will respectively hold the pinion e in or out of gear with the wheel d. conveyor H, is for the purpose of elevating the cut grain into the bed of a wagon which accompanies the machine to receive the That portion of the conveyor which is immediately behind the sickle is horizontal, but the part projecting beyond the side of the machine is inclined at a suitable angle for raising the grain over the side of the box of the accompanying wagon. I, of the frame in which the inclined part of the conveyor is supported, is hinged to the side of the frame D, as seen in figure 2, and its outer end is raised and lowered by the cord U, passing through a slot or notch in the top of the post J, and secured to a bail v', which arrangement renders the conveyor capable of elevating the grain to different heights, and also allows the frame I, to yield

when it comes in contact with obstructions that might break it if it were rigidly connected to the frame.

The conveyor consists of two parallel endless belts passing round the driving-pulley or wheel i, the bearing-pulley r, and the stretching-pulley s. These belts are held at the proper distance apart by slots t, and the whole is covered by a web of cloth, which is loose enough to bag down between the slats, forming a series of shallow depressions w, which retain any grain that may be shelled out by the action of the sickle or reel, until discharged into the wagon-box, a great deal of which grain would roll off the sides of the cloth if it were tightly stretched over the slats. These shallow bags also render the conveyance of the grain up the apron, when its inclination is very steep, much more certain and regular.

The reel G, is made and arranged in the usual, or in any suitable manner, and receives its motion from the wheel Λ' through the belt x.

The slotted fingers y, (figs. 3 & 4,) for dividing the grain, supporting it while being cut, and preventing the sickles getting damaged from sticks, stones, and other obstructions against which the machine may happen to run, are secured to a bar which extends across the front end of the machine at suitable distances apart. The front ends of these fingers are inclined downward in order that when the grain is pressed against them by the sickle or knife it may be pulled slightly upwards, which favors the cutting very much and greatly diminishes the force required to effect it.

This machine is mainly designed for harvesting grain by cutting off the heads and leaving the straw upon the ground. The heads being elevated by the conveyor, and discharged into the box of a wagon. The heads of grain thus gathered are either stacked in the open air or garnered in a barn, as may be deemed expedient.

If the grain, when cut is not ripe enough to be garnered, the sickle may be lowered so as to cut the straw at the usual height from the ground, and the conveyor placed in a horizontal position, so as to lay the grain in a swath where it may be allowed to remain until cured or it can be bound in sheaves, in the usual way.

To adapt the machine for cutting grass or hay, it is merely

requisite to lower the sickle as near the ground as possible without running on to it.

As the machine is operated in other respects besides those I have particularly mentioned in the same way that others are, I do not deem it necessary to enter into a detailed description of all the minutia of its management.

Having thus fully described the nature of my invention, what I claim therein as new, and desire to secure by Letters Patent, is in combination with a *frame* nearly balanced on its supporting wheels, and a tongue hinged to said frame, a lever connected to one, and projecting towards the driver's stand or seat on the other, so that the driver who is the sole conductor of the machine, may from said stand or seat, raise or depress the cutters at pleasure during the operation of the machine, for cutting the grain or grass at any suitable height above the ground, or for passing over any intervening obstacles, substantially as described.

I also claim in combination with the operative parts of a harvesting machine, a conveyor which first carries the cut grain horizontally across the machine and then elevates it so as to discharge the grain into the bed of a wagon driven alongside of the machine, when the conveyor-frame is connected to the bed by a flexible joint, in manner and for the purpose described.

JONATHAN HAINES.

Witnesses:

THOMAS H. UPPERMAN, A. B. STOUGHTON.

Whereas, upon the Petition of Jonathan Haines, of Pekin, Illinois, for the Extension of the within Patent granted to him on the 27th day of March 1849 and Reissued on the 6th day of November, 1855, the undersigned in accordance with the 18th Section of the Act of Congress, approved the 4th day of July, 1836, entitled "an act to promote the progress of the useful arts, and to repeal all acts and parts of acts heretofore made for that purpose" and the act approved the 27th day of May, 1848, entitled "an act to provide additional Examiners in the Patent Office, and for other purposes" did, on this 26th day of March, 1863, decide that said patent ought to be extended.

Now therefore I, David P. Holloway, Commissioner of Patents, by virtue of the power vested in me by said Acts of Congress, do

renew and extend the said Patent, and certify that the same is hereby extended for the term of seven years from and after the expiration of the first term viz: from the 27th day of March, 1863, which certificate being duly entered of record in the Patent Office, the said patent has now the same effect in law, as though the same had been originally granted for the term of twenty-one years.

In testimony whereof I have caused the seal of the Patent Office to be hereunto affixed, this 26th day of March, 1863, [L. s.] and of the independence of the United States the eighty-seventh.

D. P. HOLLOWAY, Commissioner.

DISCLAIMER.

Hon. D. P. Hollaway, Commissioner of Patents:

The petition of Jonathan Haines, late of Union Grove, in the State of Illinois, but now of Pekin, in said State, respectfully represents—

That he is the patentee and proprietor of a patent for an improvement in Harvesting Machines, dated March 27, 1849, in relation to which he now wishes to make the following disclaimer, which will be found more fully set forth in his communication to the Patent Office, filed March 9, 1863, and to which, for greater certainty, he now refers, he having paid ten dollars into the Treasury of the United States agreeably to the requirements of the act of Congress in such case made and provided:

"While on this part of my Patent, and to set forever at rest the matter of broad construction of my first claim, and which will effectually answer the greater part of counsel's argument of the 5th instant, I will say that notwithstanding all that may have been said or done heretofore in favor of the first claim in my invention extending to or covering hinged tongues with levers attached to harvesting or mowing machines when the teams were harnessed in front of the machine and drew said machine after them, I now disclaim attaching any such meaning hereafter to my said first claim; but do declare that the said first claim in my patent now sought to be extended is only valid when applied to harvesters or mowers that are driven in advance of the teams that propel them."

JONATHAN HAINES,
By Mason, Fenwick & Lawrence,
His Attorneys.

LETTERS OF ADMINISTRATION.

ESTATE OF JONATHAN HAINES, DECEASED.

 $\left. \begin{array}{c} \text{State of Illinois,} \\ \textit{Tazewell County,} \end{array} \right\} ss.$

The people of the State of Illinois:

To all to whom these presents shall come, greeting:

Know ye, that whereas Jonathan Haines, late of the county of Tazewell, and State of Illinois, died intestate, as it is said, on or about the 22d day of February, A. D. 1868, having at the time of his decease personal property in this State, which may be lost, destroyed, or diminished in value if speedy care be not taken of the same:

To the end therefore, that said property may be collected and preserved for those who shall appear to have a legal right or interest therein, we do hereby appoint James Haines, of the county of Tazewell, and State of Illinois, administrator of all and singular the goods and chattels, rights and credits, which were of the said Jonathan Haines at the time of his decease, with full power and authority to secure and collect the said property and debts wheresoever the same may be found in this State, and in general to do and perform all other acts which now are, or hereafter may be required of him by law.

Witness, W. W. Clemens, clerk of the county court in and for the said county of Tazewell, at his office in Pekin, this 3d day of March, A. D. 1868, and probate seal of said court hereunto affixed.

W. W. CLEMENS, Clerk of the County court.

State of Illinois, County of Tazewell, ss.

I, W. W. Clemens, Clerk of the County Court of said County, do hereby certify that the within contains a true and correct copy of the original Letters of Administration granted by the said County Court to James Haines on the 3d day af March A. D. 1868, according to the records of this office.

In testimony whereof I have hereunto set my hand and affixed the seal of said court, at Pekin, this 12th day of May, A. D. 1869.

> W. W. CLEMENS, County Clerk.

ADMINISTRATOR'S AFFIDAVIT AS TO THE LOSS OF LETTERS PATENT.

STATE OF ILLINOIS, County of Tazewell, ss.

James Haines, of said county, being duly sworn, doth depose and say that he is administrator of the estate of Jonathan Haines, deceased, late of Pekin, in said county; that the letters patent No. 6,245, granted to said Jonathan Haines, and bearing date the 27th day of March, A. D. 1849, have been lost or destroyed, as he verily believes; that he has made diligent search for the said letters patent in all places where the same would probably be found, if existing, and especially among the papers of the decedent, and that he has not been able to find said letters patent.

JAMES HAINES,

Administrator of Jonathan Haines, deceased.

Subscribed and sworn to before me this 22d day of December, 1869, at Pekin, in the said county and State.

[1.. 8.]

WM. DON. MAUS,

Notary Public, city of Pekin, Ill.

STATEMENT AND ACCOUNT.

In the matter of the application of James Haines, of the city of Pekin, county of Tazewell, and State of Illinois, administrator of the estate of Jonathan Haines, deceased, late of same place, for the extension of Letters Patent No. 6,245, granted to said Jonathan Haines, March 27, 1849; reissued November 6, 1855, and extended March 27, 1863, for seven years, to expire March 27, 1870, for improvement of Harvesting Machines.

Before the Senate and House of Representatives of the United States of America in Congress assembled.

To the Senate and House of Representatives of the United States:

The statement of the said James Haines, as above, administrator, respectfully shows—

That the said Jonathan Haines, after giving much attention to harvesting grain by the ordinary means of cradling and reaping by hand, and with such imperfect reapers as were then in use, did,

in the year 1849, invent, and received letters patent for, a laborsaving machine known as "Haines' Illinois Harvester," which letters patent were issued November 6, 1855, and extended by the Commissioner of Patents, March 27, 1863, for seven years from the date last mentioned. That the applicant, administrator of the said Jonathan Haines, deceased, inventor of said harvester, desires, and hereby applies to the Congress of the United States for, a further extension of said patent, for the term of years, for the reason that said inventor in his lifetime, and his estate since his death, neither nor both, have received any adequate compensation from the said letters patent nor their extension, for the time, labor, skill, and money bestowed upon said invention, and in efforts to introduce it into public use. In support of this application, and for proof in part of the statement last above made, applicant hereby introduces and makes part of this application the statement of the said Jonathan Haines, patentee. made to the Commissioner of Patents and dated November 29. A. D. 1862. This Petition and Statement shows that the said Jonathan Haines had at that date (November 29, 1862) only about \$8,500 worth of property, with one-half interest in some twenty thousand dollars of claims outstanding in favor of A. and J. Haines, of which firm he was a partner, and that said firm owed about seventeen thousand dollars (\$17,000.) This applicant

knows, and hereby states, that these claims of \$20,000 proved almost worthless, and there was hardly enough realized out of them to pay the interest on the indebtedness of said A. and J. Haines. And that the whole of the debts of A. and J. Haines had to be paid out of royalty or patent fees received for Headers made after the date of Extension of said Patent, viz: March 27th, 1863. And so it happened that instead of having some \$8,500 of property over his debts, in November, 1862, as shown by his statement, the said Jonathan Haines was by reason of failure and inability of those owing him to pay what they owed, largely insolvent at that time and for some three years afterwards.

In proof of this last statement, I attach hereto, and make part of this application, a deed, marked "A," of assignment from said Jonathan Haines, with Ansel Haines, (holding an interest in said patent, and being together the firm of A. and J. Haines,) to James Haines, of Pekin, Illinois, in trust, to enable him, out of patent fees thereafter arising from said patent on harvesters, to pay some four or five notes of said Jonathan Haines and A. and J. Haines, amounting to only about \$1,400, and which the said Jonathan and Ansel Haines were unable to pay, except in this way; thus showing that said Jonathan Haines and A. and J. Haines were indigent, if not insolvent, up to the date of this deed, March 13, 1867. These debts, as well as all others of his, except only such as were contracted for food and clothing for himself and family, were the result of efforts made by said Jonathan Haines and the said A. and J. Haines to manufacture and introduce into public use the said "Illinois Harvester," the patent on which is sought to be extended by this application. The debts, to pay which this assignment was made in 1866, were not fully paid till late in the year 1867. And, on February 22, 1868, the said Jonathan Haines died, and your petitioner administered on his estate, and has had full and complete charge and knowledge of all its assets, thence till now; and has also, as agent of A. and J. Haines, collected all the patent fees or royalty arising from the sale and manufacture of said harvester. I should have stated sooner that the said Jonathan Haines and A. and J. Haines abandoned all attempts to manufacture said harvester after the fall of 1862, from entire inability to procure the necessary means to carry on their shops. For some years prior to 1862, G. H. Rugg, of Ottawa, Illinois, and various other parties unknown to

your petitioner now, manufactured harvesters, which violated or infringed the said patent of Jonathan Haines, and he sought to prosecute and stop said infringers by suits at law, which cost him large sums of money, and from the result of which suits he never realized near enough to pay costs of same. These infringers were a great impediment to his success in introducing his harvester to the public, as they made inferior machines, and their failure to give satisfaction prevented the sale of good machines made by the patentee and those having his authority to manufacture under his patent. But in February, 1864, a compromise was made with most of these infringers, and Messrs. Walter A. Wood & Co., of Hoosick Falls; N. Y. Barber and Hawley, of Decatur; J. C. and C. N. Mayberry, and Ansel Haines, of Illinois, became the only licensees authorized to make and sell said harvesters. All suits were then withdrawn or settled, consuming a large amount of all the profits or patent fees received by said patentee up to and beyond this latter date; so that the greater amount received from sales and patent fees, or royalty on this harvester, has been consumed in efforts to introduce it to public use, against a deep-seated prejudice on account of its novelty, and against a large number of manufacturers with ample means, who were interested in the success of other and very different Harvesters, and also against infringers and the evil effects of badly-made machines they sold as "Haines' Illinois Harvester." I have made a thorough examination of all papers and books of Jonathan Haines and A. and J. Haines since March 27th, 1863, date of extension of this patent referred to above, and find there have been 3,368 Illinois Harvesters made and sold, on which Jonathan Haines and A. and J. Haines have received patent fees or royalty to the amount in all to this date of \$46,609. I attach hereto a schedule, marked "B," showing numbers made and sold and amounts of patent fees received by patentee and A. and J. Haines for each of the years 1863, 1864, 1865, 1866, 1867, 1868 and 1869, of said extended term of this patent. This is all the compensation of every kind that patentee or any person or persons for him, had received on account of this patent since November 29th, 1862, as both he and A. and J. Haines were unable to obtain money sufficient to manufacture the Harvester or run their shops for any purpose since that date. Jonathan Haines gave his whole time and attention to the manufacture and improvement of the "Illinois Harvester"

and labored constantly to introduce it into public notice and use by his own exertions and influence, and employed and interested all others he could control, to assist him in its introduction to and use by the public. He made a trip to California and Oregon by the Ocean route in 1863, remaining on the Pacific coast for nearly two years, to make known and introduce it there. And was very successful as nearly one-half the sales made since 1864, have been for use in California and Oregon. In 1866, he made an extended tour through Texas, Arkansas and southwest Missouri for the same purpose, and to collect some claims in those States for "Harvesters" sold and shipped there just previous to their attempted secession from the United States. A large proportion of his loss occurred from sales made in Kentucky, Texas, Arkansas and Missouri about the beginning of the war, where by his efforts he had successfully introduced the "Header." Secession. and the war which followed, occasioned almost entire loss of all claims for sale made prior to that time, and prevented additional sales and introduction of "Headers" after its disastrous effects on those southern states. But with all his ability, energy and skill he devoted himself at all times to efforts for extending the use and making known the utility of his invention. So unsparing was he of his comfort and health in seeking to further the success of this labor-saving machine, which he knew would lighten the toil of millions of farmers and save untold millions of bushels of grain from waste and destruction, that his death resulted from his efforts to introduce it successfully where its benefits were unknown. While in a harvest field in Missouri in 1857, engaged in practically operating one of his "Headers" to show some farmers its great capacity to harvest wheat, he was overcome with the heat and prostrated for many days by what is there designated "Sunstroke." Though he recovered from this severe attack so far as to devote himself as usual to making known the claims of his Harvesters in after years, yet its effects preyed upon his health. After his death, which was from apolexy, a post mortem examination by skilful physicians revealed the fact that the sunstroke in 1857 had affected his brain, and the injury then received gradually encroaching upon that organ, had produced his death. devoting every energy of his life for more than twenty years to invent and place before the public a useful labor-saving "Harvester" which already lessens the toil and increases the production and profit of thousands of farmers, He himself died without reaping any pecuniary reward for the great service he rendered others. His family were left at his death dependent solely on the royalty arising from sales of the Harvesters for their maintainance. And this application for extension of the patent on his invention is made for their benefit, that they may receive a partial renumeration for the great service the patentee rendered the public, but died before that public had made him any reasonable compensation. As further proof beyond this applicants assertion, that Jonathan Haines never received reasonable compensation during his life for his invention, and that his estate is still inadquate for the support of his widow and family, I have procured and make part of this application such certificates marked "C" of well known citizens of the State of Illinois, as a limited time to obtain would allow. These statements of persons well informed on the subjects of which they testify, conclusively show that the patentee labored faithfully all his life from some time before the date of his patent till his death to perfect and introduce his "Harvester" to public use. And that during all that time he was poor, and often involved far beyond his means to pay, and that some of his debts, from inability, were unpaid at his And that his family and widow now have no means beyond and aside from the patent fees on sales of the "Illinois Harvester," and that if this source of support is cut short on termination of the patent as now extended, they will have to rely on their own industry for daily bread. These certificates of practical farmers, machinists, and dealers in Harvesting Machines amply show that the "Illinois Harvester" is one of the best and probable the most useful labor-saving machine known to Agriculture. That it is yet very little known to the public and introduced only in a very limited proportion of our vast grain-growing territory. That it will require large Capital, skilful interested energy, and many years of successful efforts to give it that notoriety and position which it so well merits, and which alone can render it remunerative to the heirs of the patentee or to the manufacturer. This applicant believes. and these statements authorize such belief, that unless the patent on this Header is extended for a considerable number of years, giving to the heirs of the patentee and to manufacturers already skilled and experienced in its construction, introduction and sale. protection from unskilful, inexperienced, irresponsible competition, the machines will be so poorly constructed, for the sake of cheapness and undeserved profits, as to fail in successful harvesting, and disappoint and defraud farmers purchasing them, and thus be driven from the market, the public robbed of their benefit, and enterprising labor deprived of this great alleviator of toil.

The statement attached hereto of numbers made each year, during the seven years just closing, shows a steady increase each year, though the number made last year is very small, when it is compared with the innumerable wheat fields which swell the product of our agricultural continent. If the patent be extended by your honorable body for a liberal term of years, it is reasonable to expect the same energy which has combatted and overcome so many obstacles to its introduction, where entirely unknown and untried, will be still more successfully exerted in spreading its usefulness where it is now partially known. The royalty arising from extended sales will enable the heirs of the patentee to employ more manufacturers, while those who have thus far constructed machines that have given satisfaction and increased the reputation of the Header wherever used, will be enabled to increase the numbers they make, by the profits of a business thus secured to them for some years to come. So that, when the term, for which you may now extend it, has run out, the invention will be well placed before the public, by the energy of a patentee whose heirs will have at last received a reasonable compensation for the time, effort, skill and means employed in perfecting the invention, and by machines made by skilful, well-paid manufacturers, which do their work well and give satisfaction and profit to the purchasers, widely scattered over our grain-growing districts, making the "Header" so familiar that after expiration of the patent it can be constructed by ordinary mechanics and made as common in the wheat fields of all our land, as wagons and plows now are.

By reference to schedule "B" it will be seen that the whole amount received by Jonathan Haines, A. and J. Haines, and the estate of Jonathan Haines from the patent, hereby sought to be extended, since November 29th, 1862, date of former application for extension, is \$46,609. After payment of debts of A. and J. Haines out of this sum there was left \$20,909. Only one-

half belonged to the estate of Jonathan Haines....... \$10,454 50 Deduct from this the private debts of Jonathan Haines, funeral expenses and such other administration

It leaves, belonging to his estate as my books now show. \$7,761 75

This amount of money, to be still more reduced by payment of Government "Succession Tax," Probate and Administration fees, with one-half interest in Machine Shops of A. and J. Haines at Pekin, Illinois, and a grain, or warehouse, at Albany, Illinois, from which no rent has been received for two years and considered quite worthless, is absolutely all the estate of Jonathan Haines is now worth. His widow is quite aged, in feeble health and has no means of support, except the small amount allowed by the laws of Illinois and of her husband's estate in specific property or money in lieu thereof. Four daughters and one son, his heirs, are dependent almost entirely on their interest in the patent, now asked to be extended, for their support.

I have made this petition much longer than I wished but I feared the claims this patent has upon your honorable body, for a liberal extension, could not be understood with less explanation. And all I have said, is not one-hundreth part that might be truthfully urged in favor of the Header, as a labor-saving machine, capable of benefiting the public if Congress will extend to the heirs of the patentee the patent on it for such time as will enable them to introduce it into public use.

JAMES HAINES,

Administrator.

Number of Harvesters made, and amount of Patent fee received in the Years 1863, 1864, 1865, 1866, 1867, 1868 and 1869 by Jonathan Haines and A. and J. Haines, viz:

100	for	the	year	1863,	patent	fee	received	 \$1,500
135	66	"	""	1864,	• "	66	"	 2,025
				1865,		66	66	 5,225
275	66	66	66	1866,	66	66	66	 4,412
594	"	66	66	1867,	66	66		
769	. 66	66	66	1868,				 12,462
1140	66	66	66	1869,	6 6	"	"	 11,700
3368								\$46,609

AFFIDAVITS AS TO UTILITY.

State of Illinois, County of Tazewell, ss.

Warren Kilpatrick, of said county, being first duly sworn, on oath states that he has been acquainted with and used the "Haines Illinois Harvester" for the last ten years, cutting on an average about 350 acres of wheat, or other small grain, each year; during the harvest of 1867 he cut over 600 acres with one of these harvesters. In all cases the grain saved as well, and in some instances better, than that cut by a reaper or other harvesting machines; I have used and seen used some of the reaping machines known, and know from my own experience and the statements of good, reliable farmers that it costs less than one-half to cut grain with this harvester that it does with a common reaper; grain can be cut and stacked with "Haines' Illinois Harvester" at at less cost than to stack grain from the shock after having been cut and bound. In wet seasons, the grain cut with a header, if properly stacked when cut, saves better than that bound and shocked, being free from danger of heating and sprouting while in stack. Affiant states that by using the header he saved more than one-half the cost of cutting and saving his grain over and above the cost of reaping.

Affiant states that it costs at least \$3.00 per acre to cut and save grain with a common reaper, so that on the average of 350 acres that he cut with a Haines' header he saved, at a low estimate, \$525 each year. Affiant is informed and believes that there were 1200 of these Harvesters made, sold and used the last year, which cut, say 300 acres of wheat, or other small grain, each, which, at a saving of \$1.50 per acre, saved to the owner and the public \$450; from same information, affiant states that 6,000 of these machines now in use in the United States save annually to the owners, and is a benefit to the public, \$2,700,000.

Affiant further states that this machine is more durable, less expensive to keep in operation and repair; less liable to get out of order and make delay and damage in the harvest field; does its work better and more rapidly than any other harvesting or grain saving machine before, and used by the public. Grain can be cut witht his machine with much lighter work to men and teams employed to work it than by any other reaper or harvester.

Affiant states that he knew Jonathan Haines, the patentee of

the "Haines Illinois Harvester," for fifteen years before his death, in 1868; he knew that he was diligent in his endeavors to introduce his machine to the public, but on account of prejudice on the part of the farmers in general was only partially successful, and that he never received adequate remuneration for the time, skill and expense incurred in inventing, patenting and introducing the header to the public.

Affiant believes that the merits of this harvester have never until of late been known and recognized by the farmers in general; that the machine is becoming more popular, and more will

be sold in years to come than there has been in the past.

Affiant further states that he believes the estimates of benefit to the public from the use of "Haines' Illinois Harvester" is below, rather than above its true value, and that the above calculations and statements are true, to the best of his knowledge and belief.

WARREN KILPATRICK.

Subscribed and sworn to before me, this 29th day of January, A. D. 1870.

[N. S.]

FRANK E. PURPLE, N. P.

State of Illinois, County of Tazewell, ss.

Gideon H. Rupert, of Pekin, in said county, being duly sworn, on oath states that he has been well acquainted with the manufacture, sale, use, and operations of the "Haines Illinois Harvester," for past twenty years.

From personal experience in using this harvester to cut his own grain, and from statements of other farmers who have tested its benefits and capacity to harvest and save grain, affiant states that "Haines' Illinois Harvester" is the best and most reliable machine to harvest and save grain now in use.

It cuts and secures the grain better, with more saving of labor and less waste of grain, and with lighter work to men and teams employed to run the machine, than any other reaper or other harvesting machine now in use. Each one of these harvesters will cut 300 or more acres of wheat or other small grain each year when well worked, and at one dollar and a half (\$1.50) less cost than with any other machine on each acre, making a saving or benefit to its owner and the public of \$450 on each machine in use each year.

Affiant is informed and believes there were twelve hundred of these "harvesters" made, sold, and used last year, benefiting the public, by their greater cheapness in harvesting, \$540,000 for last year over and above any other means of harvesting known.

He is also informed and believes that there are about 6,000 of these machines now in use in the United States, benefiting the public each year \$2,700,000. The public demand for them is increasing, and affiant states that more will be sold this year than last, so that the great benefit of \$2,700,000 each year, as stated above, will be increased each year as the sales become greater, so that each year's sales will add more than half a million dollars benefit to the public from the use of these Harvesters. So that during an extended term of seven years of this patent, the public would be benefited more than \$30,000,000 from the use of this harvester.

Affiant states that from long experience in cutting his own and neighbors' grain with this and other harvesting machines, and from being present in the capacity of agent, in starting and operating this and other machines, he knows that the "Haines Illinois Harvester" is the best and only real labor and grainsaving harvester now known to the public, and that the above calculations and statements are true. And further sayeth not.

G. H. RUPERT.

State of Illinois, County of Tazewell, ss.

C. B. Cook, of Pekin, in said county, being first duly sworn, on his oath states as follows:

Some time in the year 1858 I engaged as agent to sell and introduce among the farmers "Haines' Illinois Harvester," and from that time till now have been well acquainted with its manufacture, sale, use, and benefit. I know it was a very difficult machine to sell and introduce into use among farmers, because it is so different from all other reapers or harvesters, and was when I was selling it far in advance of the known wants of the farmers. They were prejudiced against it by makers and sellers of other reapers and harvesters, and found grain cut with this harvester would spoil in the stack, as they had been told it would. Jonathan Haines spent all his time, I know, from 1858 to 1868, when he died, to make, sell, and introduce his harvester into public use, and spent all his money and all he made in this effort; and I

know he died poor, never having made anything above his outlay by sales of his harvesters. I know his widow is now old and in feeble health, and has no means to support herself, except the patent fees arising from the sales of this harvester coming to her from her husband's estate. Her five children, the children of Jonathan Haines, deceased, patentee of this harvester, have no other means of support than from this patent. I know that this header is now getting to be well liked by farmers, and its sale is increasing each year. There were about twelve hundred of these sold to farmers the past year, and there are about six thousand in all in use in the United States. I have sold a great many myself, and helped farmers try them and cut grain with them. I know that grain can be cut one dollar and fifty cents per acre cheaper with the Illinois Harvester than with any other harvester now in use. Three hundred acres each harvest is an average amount for each header to cut. This, at one dollar and fifty cents per acre saving, makes \$450 each harvester benefits its owner and the public each harvest over other machines. The twelve hundred sold and used last year benefits to the public \$540,000. The whole six thousand in use benefited the public last year \$2,700,000. This is a low calculation of the benefits the Illinois Harvester now is to the public. Its use is increasing, and its benefits in next and future years will be still greater than above calculations now show.

Affiant states the above is a true calculation and statement of benefit arising to the public from the use of "Haines' Illinois Harvester"

QYRUS B. COOK.

Sworn to and subscribed before me, this 21st day of January, A. D. 1870.

A. B. SAWYER, Notary Public.

STATE OF ILLINOIS, County of Tazewell, ss.

I, Thomas Edes, of Logan county, in said State, being first duly sworn, on his oath states that he has been well acquainted with the manufacture, sale and use of "Haines' Illinois Harvester" for the past fifteen years; that he knows, from having used this harvester each harvest for said number of years, that it is far superior to any other reaper or harvester now in use. Appliant states he has and can cut from three to four hundred acres

of grain each harvest with one of these harvesters; that he has and can harvest with them at one-half the cost of cutting grain with other harvesting machines; that there is a clear saving of one dollar and fifty cents on each acre cut with these harvesters over the expenses of harvesting with any other machine now in use, and, then, each of these harvesters, when well worked, will save to its owner four hundred and fifty dollars each year, and be then much benefit to the parties in saving labor; that, as he is informed and believes, there was twelve hundred Illinois Harvesters made, sold and used; that last year each one of these saving to the public, and benefiting the owner and the public, \$450-making a total benefit, on twelve hundred used, of \$540,000 in the past year. Appliant also states that he is informed, and believes, there are six thousand of these Illinois Harvesters now in use, which would make a benefit of \$2,700,000 to the public each year from their use. He also states, from personal knowledge, that the harvester is growing in public favor, and that more will be sold the present year and next year than ever before. Appliant also states that he knew Jonathan Haines well, and knows that he devoted all his time and means to make, sell and introduce his harvester into public use, and that he died poor, leaving his widow and family dependent on the patent fees arising from the patent on the "Illinois Harvesters."

Appliant states that his knowledge of the "Illinois Harvesters," and its benefit to the farmers and the public, is based mainly on his own experience, having seen harvesters used, two of them in harvesting his own grain, and he states the calculations of the benefit to the public, made above, are true to the best of his knowledge and belief.

Appliant's experience is based on his own experience of cutting his own grain with these harvesters, having raised from 300 to 600 acres of wheat each and every year for the past ten years, and cut the same with the Illinois Harvester.

THOMAS EDES.

Sworn to and subscribed before me, this the 24th day of January, A. D. 1870.

A. B. SAWYER, Notary Public.

STATE OF ILLINOIS, County of Tazewell, ss.

John O'Brien, of Groveland Town, in said county, being first duly sworn, on his oath states that he has been well acquainted with the manufacturers and use of Haines' Illinois Harvesters for ten years past. That from his own experience in harvesting his own grain, and from statements made to him by G. H. Rupert, and many other large farmers he knows, and here states that each harvester, well made, will cut at least three hundred acres of grain, each harvester at a cost of one dollar and fifty cents per acre less than it can be harvested by any other reaper or harvester known to appliant. That each harvester used saves to its owner and to the public four hundred and fifty dollars each harvest used. Appliant is informed by manufacturers and believes that there were twelve hundred Illinois Harvesters made, sold, and used the last year. This number used benefited the public at least \$540,000. He is also informed and believes that there are in use now in the United States six thousand of these harvesters. That number made benefit the public and their owners in the aggregate, \$2,700,-000 each year. Appliant knows of his own knowledge that these machines are growing in public favor, and are more wanted now than in past years; and that more will be sold this year and next year than in any two years before.

Appliant knew Jonathan Haines for twenty years before his death in 1868, and knows that he devoted all his time and means to making, selling, and introducing his harvesters into public use, and knows he died a poor man.

Appliant states that the above calculations of the benefit of this harvester to the public are made from personal knowledge and reliable information, and are below rather than above the true value to the public. And that these harvesters are of great benefit to the public, because the labor to harvest with them is much easier for man and horse than it is in harvesting with any other harvester.

JOHN O'BRIEN.

Subscribed and sworn to before me, this, the 24th day of January, A. D. 1870.

WM. DON. MAUS, Notary Public, Pekin, Ill. $\left. \begin{array}{c} \text{State of Illinois,} \\ \textit{Tazewell County,} \end{array} \right\} \textit{ss.}$

John Studyvin, of said county, being duly sworn on his oath, states that he has been acquainted with the manufacture, sale, and use of the Haines Illinois Harvester since its introduction to the public, in 1850. He knows it is the most reliable machine for harvesting grain known to the public; that it cuts and saves grain at less cost and less waste, in better order, lighter labor to men and teams employed with it, than any other reaping or harvesting machine in use by the public. Having used one of these machines for cutting my own and neighbors' grain for the last 20 years, I speak from great practical experience of my own and that of many intelligent, practical farmers; from such information I know, and therefore state that this harvester will save one dollar and fifty cents (\$1.50) per acre on each acre of grain cut with it, as compared with other harvesting and reaping machines now in use by the public. This machine is more durable, less expensive to keep in operation and repair, less liable to get out of order, make delay and damage in the harvest field, does its work better, more rapidly than any other harvesting or grainsaving machine before, and used by the public. Each one of these harvesters, well-worked, will cut and save three hundred or more acres of wheat or other small grain each harvest, saving to the public, on each acre so cut, one dollar and a half, (\$1.50,) making a saving to its owner and to the public of \$450 on each vear on each harvester in use.

Affiant is informed, and believes, that 1,200 of these machines were made, sold, and used the last year, benefiting the public, by above calculation, to the amount of \$540,000. On same information, believes that there are 6,000 of these Haines Harvesters now in use in the United States; this number would benefit the public, by their saving in expense, each year, \$2,700,000. Affiant further states that he knew Jonathan Haines, the patentee of the "Haines Illinois Harvester," from 1845 till his death, in 1868, and know that he has been diligent in his endeavors to introduce his harvester into general use, but, on account of prejudice on the part of the farmers in general, was only partially successful; and that he has never received adequate remuneration for the time, skill, and expense incurred in inventing, patenting, and introducing the headers to the public; and that he died poor, leaving

his widow and children dependent on the income derived from this patent for support. Affiant further states that this harvester is becoming more popular, and in more demand, each year; and that there will be more sold each year from this time, over those in the past year or years, so that there will be more in use each year hereafter than now; and if the patent on this invention be extended by Congress for seven years from its expiration, the benefit to the public each year will be increased, and for the next seven years the aggregate benefit to the public will be \$30,000,000 or more. Affiant believes that the calculations of benefits to the public derived from the use of Haines' Illinois Harvester is too low, rather than too high.

JOHN STUDYVIN.

Subscribed and sworn to before me, this 28th day of January, A. D. 1870.

[N. S.]

FRANK E. PURPLE, N. P.

STATE OF ILLINOIS, County of Tazewell, ss.

Henry Sage, of said county and State, being first duly sworn, on his oath states that he has been well acquainted with the manufacture and sale of "Haines' Illinois Harvester" for the past twenty years, and from practical experience while engaged in farming myself, and from statements and practical tests of many farmers in this State known to me, I know, and therefore state, that grain can be harvested and saved by the header at one-half the cost of harvesting with reapers and other harvesters now used. From like experience of myself and others I know, and therefore state, that each header, well worked, will cut an average of three hundred acres each harvest, and will save one dollar and a half per acre over any other reaper or harvester in use, thus saving to the owner of each header \$450 each harvest, and benefiting the public to that amount on each one used. About 1,200 harvesters were made, sold, and used the last year, benefiting the public \$540,000. There are now over 6,000 headers in use, benefiting the public \$2,700,000 each year. Affiant further states that he knows that this machine is gaining in favor with the public, and that he believes more will be made and sold next year and following vears than the past year, and the benefit to the public will increase each year as greater numbers of the headers are sold. Affiant

further states that he was well acquainted with Jonathan Haines, the patentee of the "Illinois Harvester," from the time he invented and patented the same until his death in 1868. That said Jonathan Haines devoted his whole time and all his means to making, selling and introducing his harvester into public use. And that he died poor, never having realized any profit from his invention in his lifetime; he left his widow and children poor, and that they are now dependent on patent fees arising from this patent for their support.

Affiant further states that this invention is a very valuable one to the public, and the calculations above of its benefits to owners of harvesters and to the public are true. And further says not.

HENRY SAGE.

Sworn to and subscribed before me, this 22d day of January, A. D. 1870.

[L. S.] [Stamp.] A. B. SAWYER, Notary Public

STATE OF ILLINOIS, County of Tazewell, 88.

Benjamin S. Prettyman, of said county, being first duly sworn, on his oath states that he has been acquainted with the "Haines Illinois Harvester" for the past fifteen years; that he has used them in cutting his own grain for many years past, and from actual experience with them knows that grain can be cut with these harvesters at half the cost of harvesting with other grain harvesting machines now in use, saving in cost to farmers of one dollar and fifty cents on each acre harvested with this machine over any other known to affiant. That harvester well made will harvest and save three hundred acres of wheat or other grain each harvest it is used; he knows from experience in their use that they are more durable than other reapers or harvesters now in use. He states that this harvester does its work better, saves the grain with less waste, is less fatiguing to man and horse employed on it, and costs one dollar and fifty cents less per acre to harvest and save grain with it than with any other reaper or harvester.

That he has been informed and believes that twelve hundred of these harvesters were made, sold, and used during the past year. This number used would save to the owners and to the public, \$540,000; he is also informed that there are now six thousand of these harvesters in use in the United States. This number now benefits the public \$2,700,000 each year. Affiant states from his own experience, that this harvester is growing in public favor and is better liked by the public than ever before; and that more of them will be made and sold this year than ever before. states further that he knew Jonathan Haines well, and was familiar with his financial condition from 1850 till 1868, time of his death, and that he was always poor and unable to pay his debts; he continued to make, sell, and introduce his harvester to public use; that he died poor, and left a widow old and in feeble health, and five children, all dependent on patent fees arising from this patent for support. Affiant knows the truth of the benefit of this harvester to the public from his own personal experience and observation, and from information from many practical and reliable farmers, and from such knowledge, states that the above calculation of its benefit to the owners of harvesters and to the public is below rather than above their true value and benefits to the public.

B. S. PRETTYMAN.

Subscribed and sworn to before me, January 24, 1870. WM. DON. MAUS.

Notary Public.

STATE OF ILLINOIS, County of Tazewell, ss.

William S. Maus, of said county, being duly sworn, on oath states that he has been well acquainted with the manufacture, sale, use and operation of "Haines' Illinois Harvester" for past twenty years. From personal experience in using this harvester in cutting our own grain, and from statements of other farmers who have tested its benefits and capacity to harvest and save grain, affiant states that "Haines' Illinois Harvester" is the best and most reliable machine to harvest and save grain now in It cuts and saves the grain better, with less waste of grain and more saving of labor, and with lighter work to men and teams employed to run the machine, than any reaper or other harvesting machine now in use. Each one of these harvesters will cut three hundred acres or more each harvest, when well worked, and at one dollar and fifty cents less cost than with any

other machine on each acre-making a saving or benefit to the owner and to the public of \$450 on each machine in use each year it is used. Affiant is informed, and believes, there were twelve hundred of these harvesters made, sold and used last year, benefiting the public, by their greater cheapness of harvesting, \$540,000 for last year, over any other means of harvesting. is also informed, and believes, there are about 6,000 of them now in use in the United States, benefiting the public each year, \$2,700,000. The public demand for them is increasing, and affiant states that more will be sold this year than last, so that the great benefit of \$2,700,000 each year to the public, as stated above, will increase each year with the increased sale of these harvesters, so that each year's sales will add more than half a million dollars benefit to the public from the use of these harvesters-so that, during an extended term of seven years of this patent, the public would be benefited about \$30,000,000 from the use of "Haines' Illinois Harvester." Affiant makes above calculations of benefit to the public from actual experience and statements of farmers who have used and tested the harvester, and believes the statements below rather than above the actual benefits the public will derive from this harvester if its manufacture is continued and machines furnished as the public demands. Affiant further states, that from his own use of the "Illinois Harvester" in cutting his own grain for some five or six years, while engaged in farming, and from cutting the grain of all his neighbors during that time, that the above calculations of benefits to the public from its use is below, rather than above, its true value as an invention and a labor-saving machine.

Affiant also states that he was well acquainted with Jonathan Haines, the patentee of this harvester, and knows that he devoted all his time and means to the making, selling and introducing his harvester to the public; and that he died a poor man, leaving his widow and children all dependent for support on patent fees arising from the patent on this harvester, and that if the patent is not extended by Congress, they will have no means of support, except their labor.

W. S MAUS.

Subscribed and sworn to before me, this 24th day of January, A. D. 1870.

STATE OF ILLINOIS, County of Tazewell, ss.

We, the undersigned, farmers living in said county, being duly sworn on our separate oaths, state that we have known the "Haines Illinois Harvester" for ten years past, and being familiar with its work in harvesting and saving grain. From our own knowledge, derived from long use of this harvester, we state that grain can be cut and saved with it at half the cost of reapers and other harvesters known to us. We have used some of the best reapers in use, and know, from using them and the harvester, that grain is saved much better with this header than with any other harvester, and the labor of heading with it is much easier than reaping or any other way of harvesting known to us.

The "Illinois Harvester" will cut and save grain one dollar and fifty cents (\$1.50) cheaper per acre than any other harvesting machine we know; and each header, well worked, will cut three hundred acres or more each harvest, saving to the owner and the public four hundred and fifty (\$450) dollars on each harvester each harvest used, making a saving of \$540,000 on the twelve hundred "Illinois Harvesters" made and sold and used during the last year. Affiants are informed, and believe, about six thousand of these harvesters are now in use, saving to the public and their owners each year \$2,700,000 annually. These harvesters are becoming better known, and more wanted by the public, and more will be sold each year hereafter than in the year just past.

These calculations of the benefits of the Illinois Harvester are made from our own experience in their use, and is below rather than above their true value to the public.

PETER MURRY, JAMES FARROW, J. C. DUNCAN, JOHN PHILLIPS:

Sworn to and subscribed before me, this day of January, A. D. 1870.

State of Illinois, County of Tazewell, ss..

I, E. W. Rosseter, of Pekin, Tazewell county, being first duly sworn, on my oath state that I have been well acquainted with "Haines' Illinois Harvester," both in its manufacture at the

shops in Pekin, and its sale and use by farmers, for five years past; I know that nearly twelve hundred of these harvesters were made and sold the year just past, and about six thousand of them are now in use in the United States; I know from my own experience in seeing them harvest grain, and from the practical test and use of them by many farmers who have proved the truth of my statement, that grain can be and is harvested with these headers at one-half, or less than half, the cost of harvesting it with reapers or any other harvester now in use. The cost of harvesting with other machines is three dollars or over per acre, with this header, not more than one dollar and fifty cents per acre; making a saving or benefit to the public of one dollar and fifty cents on each acre cut with a header. Each header well worked cuts on an average three hundred acres each harvest; one dollar and fifty cents benefit, or saving on each acre so cut makes \$450 that each header in use benefits the public each year. hundred made the last year benefited their owners and the public \$540,000. The whole 6,000 headers in use last year benefited the public \$2,700,000. The header is gaining in favor with the public, and more will be used each year hereafter if they can be obtained by farmers. This affiant states the above calculation is true, and the public is benefited as he has estimated above.

E. W. ROSSETER.

State of Illinois, County of Tazewell, ss.

C. R. Cummings, of Pekin, Tazewell county, State of Illinois, being duly sworn, on oath states that he is largely engaged in farming, having several farms in Illinois, and was engaged as agent and collector for Barber and Hawley while they were engaged in manufacturing and selling "Haines' Illinois Harvester" for years, and that he has been familiar with the harvester and its benefits to the patentee and public since the year 1859; that he knew from his own experience that the harvester was very difficult to sell and introduce among farmers from being many years in advance of their known wants, and subject to many prejudices about grain cut with them spoiling.

Great objections were made to them, too, by manufacturers of other reapers and harvesters, increasing the ignorant prejudices of persons unacquainted with their real merit. Affiant states that he knows from personal knowledge and supplied by the practical experience of many farmers who have tested the harvester as to its economy and saving of expenses over other harvesters, that grain can be harvested and saved with it at less than half the expense of any other reaper or harvester now in use.

He further states, from same personal knowledge and practical tests of others, that a harvester, well worked, will cut from 200 to 400 acres each harvest.

The cost of cutting with other harvesters is about \$3.00 per acre, while with the header the same work can be better done at a cost of only \$1.50 per acre, so that each header cutting 300 acres of grain would save to its owner and to the public \$450 each harvest; and thus, if 1,500 headers be sold the coming year, the gain to the public will be \$675,000 over and above the cost of harvesting the same number of acres of grain by other reapers and harvesters now in use.

Affiant further states that he was well acquainted with the pecuniary circumstances of Jonathan Haines, patentee of the Illinois harvester, from 1859 to the time of his death, and knows that he was unable to pay his debts until a short time before his death; that affiant knows his widow and five children are dependent on the patent fees arising from the manufacture of the Illinois harvester for their support and maintenance.

C. R. CUMMINGS.

Subscribed and sworn to before me, this 22d day of January, 1870.

WM. DON. MAUS, Notary Public, Pekin, Illinois.

 $\left. \begin{array}{c} {\rm State.of\ Illinois,} \\ {\it Tazewell\ County,} \end{array} \right\} ss.$

We, the undersigned, of said county, being sworn on oath, state that we have been acquainted with and used the Haines Illinois Harvester for the last ten years, cutting on an average four hundred acres (400) of wheat or other small grains each year; in all cases the grain saved as well, and in some instances, better than that cut by a reaper or other harvesting machines. I have used, and seen used, some of the best reaping machines known, and know, from my own experience and the statement of good, reliable farmers, that it costs less than one-half to cut grain with

this harvester than it does with a common reaper. Grain can be cut and stacked with "Haines' Illinois Harvester" at less cost than to stack grain from the shock; after having been cut with the header, if properly stacked when cut, saves better than that bound and shocked, being free from danger of heating and sprouting while in stack.

Affiant states that, by using the "header," saved more than one-half the cost of cutting, and saving his grain over and above the cost of reaping.

Affiant states that it costs at least \$3.00 per acre to cut and save grain with a common reaper; so that, on the average of 350 acres that he cuts with a "Haines Harvester," he saves, at a low estimate, \$525 each year.

Affiant is informed, and believes, there were 1,200 of these harvesters made, sold, and used the last year, which cut, say, 300 acres of wheat or other small grains each, which, at a saving of \$1.50 per acre, saved to the owner and the public \$450,000. From same information, affiant states that the 6,000 of these machines now in use in the United States saves annually to the owners, and to the benefit of the public, \$2,700,000.

Affiant further states that this machine is more durable, less expensive to keep in operation and repair, less liable to get out of order and make delay and damage in the harvest field, does its work better and more rapidly than any other harvesting and grain-saving machine before, and used by the public. Grain can be cut with this machine with much lighter work to men and teams employed to work with it than by any other reaper or harvester. Affiant states that he knew Jonathan Haines, the patentee of the "Haines Illinois Harvester," for 15 years before his death, in 1868, and knows that he was diligent in his endeavors to introduce his machine to the public, but, on the account of prejudice on the part of the farmers in general, was only partially successful; and that he has never received adequate remuneration for the time, skill, and expense incurred in inventing, patenting, and introducing the header to the public. Affiant believes that the merits of this harvester have never, until of late, been known and recognized by the farmers in general; that the machine is becoming more popular, and more will be sold in the year to come than there has been in the past. Affiant further states that he believes that the estimates of the benefits from the use of Haines' Illinois Harvester is below rather than above the true value; and that the above calculations and statements are true, to the best of his knowledge and belief.

> JOHN McKINSTRY, J. H. McKINSTRY.

Subscribed and sworn to before me, February 1, 1870. N. S.

WM. DON. MAUS. Notary Public.

STATE OF ILLINOIS, County of Tazewell, ss.

John Schafer, of said county, being duly sworn, on his oath states that he has been acquainted with the manufacture, sale, and use of the "Haines Illinois Harvester" for fifteen years past; that he knows it is the most reliable machine for harvesting grain known to the public; that it cuts and saves grain at less cost and with less waste and in better order, and with lighter labor to men and teams employed with it, than any other reaping or harvesting machine in use by the public. Having used one of these machines for cutting my own grain and my neighbors' for the last three years, I speak from great practical experience of my own and that of many intelligent, practical farmers; from such information I know, and therefore state, that this harvester will save one dollar and fifty cents (\$1.50) per acre on each acre of grain cut with it as compared with other harvesting and reaping machines now in use by the public.

This machine is more durable; less expensive to keep in operation and repair; less liable to get out of order and make delay and damage in the harvest field; does its work better and more rapidly than any other harvesting or grain-saving machine before and used by the public.

Each one of these harvesters, well worked, will cut and save three hundred or more acres of wheat or other small grain each harvest, saving to the public on each acre so cut one dollar and a half, (\$1.50,) making a saving to its owner and a benefit to the public of \$450 each year on each harvester in use.

Affiant is informed and believes that 1,200 of these machines were made, sold, and used the last year, benefiting the public by above calculations to the amount of \$540,000.

On same information, affiant believes that there are 6,000 of

these headers now in use in the United States. This number would benefit the public by their saving of expense each year \$2,700,000.

Affiant further states that he knew Jonathan Haines, the patentee of the "Haines Illinois Harvester," from 1852 till his death in 1868, and know that he has been diligent in his endeavors to introduce this header into general use, but on account of insufficient means and ignorant prejudice on the part of farmers in general, was only partially successful; and that he has never received adequate remuneration for the time, skill, and expense incurred in inventing, patenting, and introducing the header to the public, and that he died poor, leaving his widow and children dependent on the income derived from this invention for support.

Affiant further states that this harvester is becoming more popular and in more demand each year, and that there will be more sold each year from this time on than in the past year or years, so that there will be more in use each year hereafter than now; and if the patent on this invention be extended by Congress for seven years from its expiration, the benefit to the public each year will be increased, and for the next seven years the aggregate benefit to the public will be thirty million dollars (\$30,000,000) or more. Affiant believes that the above calculations of benefit to the public derived from the use of the "Haines Illinois Harvester" is too low rather than too high.

JOHN SCHAFER.

Subscribed and sworn to before me, this 29th day of January, A. D. 1870.

[N, 8.]

M. M. BASSETT, Notary Public.

State of Illinois, County of Tazewell, ss.

Gideon H. Rupert, of Pekin, in said county, being duly sworn, on oath states that he has been well acquainted with the manufacture, sale, use, and operations of the "Haines Illinois Harvester" for past twenty years. From personal experience in using this harvester in cutting his own grain, and from statements of other farmers who have tested its benefits and capacity to harvest and save grain, affiant states that "Haines' Illinois Harvester" is the best and most reliable machine to harvest and save grain now in use. It cuts and secures the grain with more saving

of labor and less waste of grain, and with lighter work to men and teams employed to run the machine, than any other reaper or harvesting machine now in use. Each one of these harvesters will cut 300 or more acres of wheat or other small grain each year when well worked, and at one dollar and a half (\$1.50) less cost than with any other machine on each acre, making a saving or benefit to its owner and the public of \$450 on each machine in use each year. Affiant is informed and believes there were twelve hundred of these harvesters made, sold, and used last year, benefiting the public by their greater cheapness in harvesting \$540,000 for last year, over and above any other means of harvesting known. He is also informed and believes that there are about 6,000 of these machines now in use in the United States, benefiting the public each year, \$2,700,000. The public demand for them is increasing, and affiant states more will be sold this year than last; so that the great benefit of \$2,700,000 each year, as stated above, will be increased each year as the sales become greater. So that each year's sales will add more than half a million dollars benefit to the public from the use of these harvesters, so that during an extended term of seven years of this patent, the public would be benefited more than \$30,000,000 from the use of this harvester.

Affiant states that from long experience in cutting his own and neighbor's grain with this and other harvesting machines, and from being present in the capacity of agent in starting and operating this and other machines, he knows that the "Haines Illinois Harvester" is the best and only real labor and grain-saving harvester now known to the public; and that the above calculations and statements are true. And further sayeth not.

GIDEON H. RUPERT.

Subscribed and sworn to before me, this 27th day of January, A. D. 1870.

[N.S.]

WM. DON. MAUS,

Notary Public.

STATE OF NEBRASKA, County of Plattsmouth, ss.

Elias Sage, of Plattsmouth, of said county, being first duly sworn, on his oath states, that he has been acquainted with the manufacture, sale and use of "Haines' Illinois Harvester" for fifteen years past; that he knows it is the most valuable machine for harvesting grain known to the public; that it cuts and saves grain at less cost, and with less waste, and in better order, and with lighter labor to men and teams employed than any other reaping or harvesting machine in use by the public. Having used these harvesters for cutting my own grain and my neighbors, for past fifteen years, I speak from great practical experience of my own and that of many intelligent practical farmers. such information I know, and therefore state, that this harvester will save one dollar and fifty cents (\$1.50) per acre in each acre of grain cut with it as compared with other harvesting and reaping machines now in use by the public. This machine is more durable, less expensive to keep in operation and repair, less liable to get out of order and make delay and damage in the harvestfield, does its work better and more rapidly than any other harvesting or grain-saving machine before and used by the public. Each one of these harvesters, well worked, will cut and save three hundred acres of wheat or other small grain, saving to the public on each acre, so cut, one dollar and a half each year-making a saving to its owner and a benefit to the public of \$450 each year on each harvester in use. Affiant is informed, and believes, that twelve hundred of these machines were made, sold and used the last year, benefiting the public, by above statements, to the amount of \$540,000. On same information, affiant believes there are now six thousand of them in use in the United States. number would benefit the public, by their saving of expense each year, \$2,700,000. Affiant knows that this harvester is becoming more popular and in more demand, and there will be more sold each year from this time than in the past year or years, so that there will be more in use each year hereafter than now; and if the patent on this invention be extended by Congress for seven years from its expiration, the benefit each year to the public will be increased, and for the next seven years the aggregate benefit to the public will be thirty million dollars, or more. Affiant believes the above calculations of benefit to the public is too low, rather than too high, for the use of the Illinois Harvester.

ELIAS SAGE.

AFFIDAVITS AS TO DILIGENCE.

I, Gideon H. Rupert, of the city of Pekin, county of Tazewell, and State of Illinois, being first sworn, on my oath state:

I knew Jonathan Haines, patentee of "Haines' Illinois Harvesters," and late of this place and now deceased, ever since the year 1836, and know that he was an honest and industrious man. I know that he spent most of his time in making experiments in harvesting machines before 1849, when he obtained his patent on the "harvester." After this time, till his death, he devoted all his time and all the means he had and could borrow and all the influence he had to improving, making and selling his harvesters. When he had spent all his own means in building a shop and making a few machines, which did not work well, because he had not means to get good material or suitable machinery, I loaned him money and furnished all the good material I was able to, and, by his hard work and perseverance, he began to make good machines, and I got one and cut my crop of wheat, oats, and other small grain. I then learned it was the greatest laborsaving machine that ever had been made in the United States, and did all I could to help him introduce the sale and use of them in my neighborhood. But farmers were very much prejudiced against headers by agents for a host of reapers and other machines, who told them grain cut in that way (headed) would rot in the stack or spoil afterwards. Knowing the value of the machine to farmers, as I was largely engaged in farming myself and had received so much benefit from them, I determined to take a general agency for their sale and try all I could to introduce them to public use. I traveled in Indiana, Illinois, Missouri and Iowa to sell these harvesters for Jonathan Haines and A. and J. Haines, beginning in the harvest of 1858, and continued to sell machines and collect claims for them up till 1862. was the prejudice against headers, that I found it very difficult to sell them anywhere, and in several places could make sales only on condition of giving good security that the grain cut with them would not spoil, and I remained with the purchasers till the grain was threshed and found good, before they would pay or even give any obligation to pay for the machines I had thus induced them to try. Of the notes and accounts for headers sold by former agents, I found not over one-tenth were good and collectible. So I came to the conclusion that notwithstanding it was the best machine for saving labor and doing good work, it was the hardest one to sell and induce farmers to try that I ever knew. But for the last one or two years they are becoming convinced of the great value of these headers in saving labor and saving grain from waste in harvesting, and their use is becoming quite general. To tell all I know of Mr. Haines' difficulty, labor and disappointment in trying to introduce this machine to the public would tire any one to read, but I will here say, that I know he labored hard all the time I knew him and up to his death in making improvements in his machine, so as to make it better and better every year. And I know, too, that he never received onequarter enough to reimburse him for his time, trouble and labor, and that he was largely indebted to me nearly all the time, and that he used every means in his power to pay his debts, and vet at his death he was still owing considerable. I was one of the appraisers of his estate after his death, and I know his effects and assets were small and not enough to pay his debts. He was a man of good habits, sober, and temperate in all things, a good Christian man, kind to the poor, and would give his last dollar to relieve a fellow sufferer. His family and widow need an extension of this patent for their support; and I think Congress should give it a liberal extension, so they may get some compensation for the great good the patentee did for the public, and did without any remuneration. If any patent ever was extended by Congress for the benefit of a patentee, his family, or to benefit the public, this one deserves a long extension, for it is of greater benefit to the farming community and really saves more than half the labor of harvesting small grain over ordinary reapers.

GIDEON H. RUPERT.

We hereby certify that we are merchants and business men of the city of Pekin, Illinois, and have resided here and been engaged in business at this place since 1855; that we knew Jonathan Haines, of this place, during his lifetime, and know that he was engaged in the manufacture and sale of the "Illinois Harvester" during all the time from 1855 till 1863, and that he was industrious and enterprising, and constantly endeavoring to introduce his harvesting machines to public use, by himself and by all his influence through relatives and friends. We know, and therefore

state here, that during all the time he was so engaged, up to a short time before his death, in 1868, he was very much embarrassed, and unable to meet many of his debts contracted for material and labor to carry on the manufacture and sale of his The firm of A. and J. Haines, of which he was a member, was embarrassed as much as he; that after November, 1863, he did not manufacture headers on his own account, nor did A. and J. Haines, from inability to procure money to carry on their shops, but received a patent fee from others, who made and sold them; but he was still engaged in trying to extend their sale and collect claims due him for previous sales made by himself and A. and J. Haines; that his widow and family are dependent for support on patent fees arising from sales of harvesters made under his patent, as he left but little property beside a half-interest in the machine shops in this place and some debts to be paid out of his estate. We believe, from statement of many farmers who have used the "Headers" that they are a very useful machine for harvesting grain, and should be widely introduced for general use of the public. J. WAGINSELLER,

J. E. LEONARD,

President First National Bank.
F. W. LEONARD,
Vice President First National Bank.
F. SMITH,

of F. & H. Smith & Co.

HALBE VELDER,

of same Firm.

D. C. SMITH,

of Teis Smith & Co., Bankers.
F. E. RUPERT,
GEO. GREIGG.

STEPHEN C. WHEELER, HENRY P. WESTERMAN,

TEIS SMITH,
REUBEN BERGSTRESSER,
C. J. D. RUPERT.

Subscribed and sworn to before me, this 23d day of December, A. D. 1869.

W. DON. MAUS,

Notary Public, Pekin, Ill.

The undersigned having been well acquainted with "Haines' Illinois Harvester" from its first introduction into the harvest

field up to the present time, and having dealt heavily in harvesting machines of different kinds for the last twenty-two years, have had good opportunities for knowing many of the obstacles in the way of and difficulties with which the patentee (Mr. Jonathan Haines) and all the manufacturers of this machine have had to encounter in introducing it into general use among the farmers.

At first it was looked upon as an idle speculation, and when discovered that it possessed merit and utility, and if properly introduced would at once gain favor from the entire farming community, all those dealing in and manufacturing harvesters of different kinds from this combined against it, and left nothing undone that could be done to prejudice farmers against it. great was the prejudice thus created that farmers could scarcely be induced to take one as a gift, and for many years the machine was abandoned as worthless. But as the wheat-growing interests of the West began to expand, and farmers began to count their acres of wheat by the thousands, they were forced to look about for a better machine than was then in use to assist them in taking care of their large fields of grain, and finally the old "Haines Harvester" began to be talked of, and a few were manufactured from year to year-no prominent manufacturer considering it worth taking hold of.

Finally, Mr. Haines, (the patentee and inventor of the machine,) who had previously exhausted all his means and credit in manufacturing and trying to introduce his machine into general use, collected means enough to again commence manufacturing, but so great the opposition by those manufacturing other harvesters, that he was forced to fail in his business, and for a long time his invention was lost sight of.

A few years since a few manufacturers who had capital saw the need of such a harvester, and finding more merit in this invention than in any other, began the manufacture of this harvester, and to sell it to farmers, and by great perseverance finally overcome all obstacles, and it is now acknowledged to be the best and most valuable harvester in the world. But not till within the past two or three years was it known to be a success; in fact, not till within the past year was it known to be a perfect success.

Owing to the difficulties with which Mr. Haines, the patentee, had to encounter in manufacturing and introducing his machine, he was a poor man, and died so about two years since, leaving his

widow and children destitute. Yet, if the patent on this machine, which expires in March next, should be extended by Congress, now that the machine is known to be valuable, Mrs. Haines will have something to depend upon in her declining years for the support of herself and children.

H. O. GOODRICH.

Jerseyville, Ill., January 24, 1870.

State of Illinois, Cook County, ss.

Be it remembered, that on this 25th day of December, A. D. 1869, before me, Azariah T. Galt, a notary public, legally commissioned and qualified, for the city of Chicago, in the county and State aforesaid, personally appeared Thomas N. Gill, who, being duly sworn, according to law, declares under oath, that he is now in business in said city of Chicago, but has resided at the city of Pekin, in the county of Tazewell, and State aforesaid, since the year A. D. 1837, and during all that time, and up to the death of Jonathan Haines, late of said Tazewell county, affiant was personally and well acquainted with Jonathan Haines, and, also, with A. & J. Haines. Affiant was at one time engaged in the business of banking in said city of Pekin, and during such time, and afterwards, the said A. & J. Haines, who were engaged in the manufacture and sale of the Haines header harvesting machine, patented by said Jonathan Haines, were largely indebted to affiant and affiant's partners in business for loans made to assist them in carrying on said business, &c.; that at various times during affiant's acquaintance with said Jonathan Haines and said A. & J. Haines, affiant examined the details of their business, and was fully acquainted with what they were doing in the manufacture and sale of the said harvesting machines; and affiant knows that the said Jonathan Haines and A. & J. Haines managed their business prudently, worked industriously, and dealt honestly, and that the said Jonathan Haines and A. & J. Haines made no profits from the manufacture and sale of the said harvesting machines aforesaid, but, on the contrary, they were unable to pay their debts; and affiant further declares that said Jonathan Haines died at last a poor man, after said Jonathan Haines had spent the greater part of his life in experimenting upon, perfecting and introducing the said harvesting machine.

Affiant states that the said Jonathan Haines was an industrious, sober man, of generous heart and christian spirit, and deserved the success that he never attained. Affiant feels that it is but just that the family of the said Jonathan Haines should be assisted to derive some benefit from the life-long labor of the said Jonathan; that the said harvesting machines are at last established in public favor, and are of great utility as a labor-saving invention.

Affiant knows that the introduction of said machines to general use was attended with great difficulty, on account of the prejudice of farmers against them on the ground claimed by the manufacturers of rival machines, that the grain cut with the Haines harvester would rot in the stack. Affiant knows that said Jonathan Haines was but in ordinary circumstances all his life, and that he gave all his means to the perfection and introduction of said harvesting machines.

THOMAS N. GILL.

Subscribed and sworn to before me, this 25th day of December, A. D. 1869.

[N. S.]

AZARIAH T. GALT, Notary Public.

 $\left. \begin{array}{c} \text{State of Illinois,} \\ Cook \ County, \end{array} \right\} ss.$

Be it known that, on this 25th day of December, A. D. 1869. before me, Azariah T. Galt, a notary public, legally commissioned and qualified for the city of Chicago, in the county and State aforesaid, personally appeared Samuel F. Hawley, who. being duly sworn according to law, declares, under oath, that affiant is now a resident of said city of Chicago; that in the year A. D. 1859, affiant went to the city of Pekin, in the State aforesaid, and there engaged in the manufacture of the Haines Illinois Harvester, or heading machine; that although the said machine had then been in use for many years, affiant found great difficulty in selling machines, except in neighborhoods where the same had been thoroughly tried, because there was a great prejudice against it; and the opening up of new territory for sale of the same has ever been attended with great difficulty, on account of the bitter opposition of rival machine manufacturers, and the opinion of farmers unacquainted with this machine, that grain cut by it could not be saved. Affiant on coming to Pekin became acquainted with Jonathan Haines and A. and J. Haines, and knows that they were engaged in the manufacture of the heading machine, and that they did not make money from the manufacture thereof. Affiant knows that said Jonathan Haines was an industrious, prudent, temperate man, and that he devoted his time, up to his death, after affiant became acquainted with him, to the perfection and introduction of the said header machine, and never did receive therefrom any adequate compensation for the invention and the labor he bestowed upon it.

Affiant was engaged in the manufacture of said machines for eight years, and knows that it is the best labor-saving and grainsaving machine in use for harvesting grain; that it is and was a hard machine to sell and introduce into use, but now the use thereof is becoming more general in territory where it has been thoroughly tried, and affiant has good reason to believe, and does believe, that if the patent on said machine is extended, that the family of the inventor will reap some portion of the reward which he deserved for his labor and skill.

Affiant states that while affiant was engaged in the manufacture of the header machine, he paid to said Jonathan Haines a patent fee on each header made and sold.

SAMUEL F. HAWLEY.

Subscribed and sworn to before me, this 25th day of December, A. D. 1869.

[N. S.]

AZARIAH T. GALT, Notary Public.

PATENTEE'S PETITION FOR EXTENSION OF LETTERS-PATENT.

To the Commissioner of Patents:

The petition of Jonathan Haines, of the city of Pekin, in the county of Tazewell, and State of Illinois,

Respectfully Represents—

That he has, by Letters Patent, dated on the 27th day of March, A. D. 1849, and reissued November 6, 1855, been the inventor and manufacturer of what is known as Haines' Illinois Harvester or heading machine, And that he has been engaged exclusively, by himself and with others from the date of said patent until last spring, in manufacturing said machine; except the incidental

job and repair work, a shop of this kind will naturally draw, and which job-work formed a large share of our prosperity in business.

The difficulty and cost of introducing a machine of this kind doing its work so very different from the common horse-power reapers, can only be known to those who have been engaged in such business.

Notwithstanding my machine does its work so different from common reapers therefore very naturally requiring greater exertion and cost to introduce it than would be necessary with a more common kind; very many who have been engaged in the manufacture of those common kind, have entirely failed in business or have transferred it in such a manner as to prevent utter bankruptcy, only two of which I will name in this connection who at one time seemed to bid fair to rival, not only the smaller manufacturers of the West, but even McCormick too. I refer to the John H. Manny establishment, at Rockford, Illinois, doing business under the name and style of Talcott, Emerson & Co., and J. C. Wright, of Chicago, manufacturer of the Atkins celebrated automaton self-raking reaper and mower; both of said machines being well known to the Patent-Office.

The supposed danger of wheat spoiling in the stack when cut with my machine and stacked immediately, in connection with the great number of shops that have commenced the manufacture of the common reapers in the last fourteen years, each exerting himself to have farmers believe his machine the best, and all acting as a unit in condemning the heading machine, have proved a fruitful source of hindrance to the successful introduction of my machines. After the most diligent attention to and rigid economy in the business, I find myself to be worth but little more than when I first embarked in the business, as the accompanying affidavits will show. In fact, had it not been for the job-work done by us, amounting to about \$500 each year, clear profits, and the machines sold wholesale to supply the Pacific country, we should have been forced to suspend business long before this.

Mr. George Esterly, of Walworth county, Wisconsin, who commenced the manufacture of a machine in 1846, doing its work just like mine, was forced to abandon it in a few years at a very great loss.

The necessary exertion to introduce my machine involves such

a complication of circumstances, such as machines being sent to many different and distant parts between the gulf of Mexico and the Northern lakes, with failure of sales, with accumulation of expenses in various ways incident to such business, and the dishonesty of and embezzlement by agents and the bankruptcy of many that purchased machines, with breakage, miscarriage and destruction by fire, render it impossible to give a definite statement of our business; leaving us the only alternative of coming at the result of our business, by estimating the value of our property and notes due us, after deducting our liabilities.

I will state too, that in the year 1855 I patented a mowing machine, and sold about \$5,000 worth of rights in that machine, and have not manufactured myself, or the firms to which I have and do belong more than ten of said machines, while the money realized from the above-named sales was put into our business.

Then I sold to Ansel Haines, in 1853, the one-half of my interest in my patent of March 29, 1849, for the sum of six thousand dollars, on a credit; said Haines then entered into business with me in the manufactory of said Illinois harvesters, and has remained with me until the present; but our profits being so limited that he has only paid me about one-half of the above sum.

In order to the more rapid introduction of my Harvester, in the year 1855 we received Mr. Isaac A. Hawley into partnership with us for two years; at the expiration of this time, said Hawley purchased of us the north half of the State of Illinois, for which he was to pay us in annual payments about \$24,000, and what money has been received from him has been put into our business.

Said Hawley then commenced the manufacture of said harvesters to sell in his territory, but, in consequence of the same obstacles that met us in the same business, he failed to succeed as anticipated, consequently reducing our income from that source.

The firm of A. and J. Haines continued the manufacturing of said machines until last April, when we found ourselves unable to continue the business; consequently werented our patent rights, shops and machinery, to Samuel J. Hawley and Samuel E. Barber.

Said Barber and Hawley have made and sold on the territory rented of us 142 machines in the Mississippi valley the past season, and have made and sent to California for next year's harvest 130 machines, for which they have and are to pay us \$25 on each machine sold on our territory as above stated.

When I first embarked in this business, my property was worth about three thousand five hundred dollars, and at this time I still hold about that amount of property not included in the co-partnership business.

The property of A. and J. Haines is worth about eighteen thousand dollars, consisting of our shops and machinery, and the land on which they stand, and a small amount of personal property; the real estate is covered by a mortgage to secure our creditors.

We have about twenty thousand dollars due us, which, after paying expenses of collecting, and the very great loss by insolvency, we expect to only be able to pay off all of our indebtedness, and release the above-named property from encumbrances.

We have also expended about twelve hundred dollars in the prosecution of a suit against George H. Rugg, of Ottawa, Illinois, for an alleged infringement of my patent of 1849.

Said Rugg appealed to the Supreme Court at Washington, where it is now pending, requiring an additional cost to prosecute it to its termination.

Also, by the advice of an eminent lawyer and statesman, now Chief Executive of the United States, we commenced a suit against Messrs. Talcott & Emerson, of Rockford, for an alleged infringement of my patent of 1849, but up to this time have not been able to bring them to trial; also, their failure in business since the commencement of said suit renders it quite certain that nothing could be made off of them, even if judgment should be obtained in my favor, the present cost of which is about \$500. Also, it cost us about \$500 to search out a prior inventor to Jonathan Read, of the scolloped sickle, in consequence of being threatened with prosecution for an alleged infringement of said Jonathan Read's patent for said sickle.

He therefore prays that the letters patent granted him on the 27th day of March, 1849, be extended for the term of seven years from the 27th day of March, 1863, he having paid Fifty Dollars into the Treasury of the United States, and complied with the other conditions of the act of Congress in such cases made and provided.

STATEMENT OF ACCOUNT.

PEKIN, ILLINOIS, November 29, 1862.

To the Commissioner of Patents:

In accordance with the acts of Congress of the United States of America, I submit for your consideration the following statement of receipts and expenditures in the manufacture of Haines' Illinois Harvester, from 1849 up to the present time:

Amount of sales from 1849, up to April, 1862, of 1,328 machines
Received as patent fees from several parties up to the present time
\$261,100
Cost of building, altering, adding to, and experimenting with the above-named machines, in the above-named time\$185,920
Cost of selling and collecting, and losses of every
kind, including freights, storage, and destruction by fire
Balance in favor of patent

There is also in anticipation, from the suit now pending in the Supreme Court of the United States, from George H. Rugg, the sum of twenty-three hundred dollars, which is, however, overbalanced by the cost already in said suit of twelve hundred dollars, in addition to what will yet be necessary to attend the suit to its end; in connection with the cost in the Talcott & Emerson's case of five hundred dollars, and the five hundred dollars expended in the investigation of the validity of the Jonathan Read sickle patent.

Of the foregoing receipts and expenditures, we still have about seventeen thousand dollars; also, we have still due us, and uncollected, about twenty thousand dollars, which may fall far short of paying our indebtedness.

The above-named balance of eighteen thousand dollars, which consists of our shops, machinery, and land on which they are situated, except a very small amount of personal property belonging to the firm of A. & J. Haines, jointly, the one-half only belongs to myself, being nine thousand dollars; I also have

due me from Ansel Haines the sum of three thousand dollars. Total, \$12,000.

JONATHAN HAINES.

Subscribed and sworn to before me, by Jonathan Haines, this 29th day of November, A. D. 1862.

[L. S.] A. BRADLY, N. P.

Note.—By reference to my petition and the affidavits of C. Denton and Samuel E. Hawly, it will be seen that I have made an error against myself of \$3,500, reducing the balance in my favor to \$8,500, with the probability of a still greater deduction by loss of debts and costs on suit.

JONATHAN HAINES.

DECISION OF COMMISSIONER OF PATENTS.

U. S. PATENT OFFICE, March 26, 1863.

In the matter of the application of Jonathan Haines for the extension of the patent granted to him on the 27th day of March, 1849, and reissued to him on the 6th day of November, 1855, for improvements in Harvesters.

Under the statute and rules of the Office, the first inquiry by the Commissioner upon an application for an Extension is as to the novelty of the invention at the time the original patent was granted, and whether the reissue was confined to the original invention.

The original claim in this case is as follows:

"Having thus described the construction and operation of my improved Harvester, what I claim therein as new and desire to secure by letters patent is suspending the frame which carries the conveyor reel and cutter upon the axles of the wheels A A, when the frame thus suspended is hinged to the tongue and rendered capable of being turned upon its bearings by means of a lever for the purpose of elevating and depressing the cutter as herein set forth."

The claim in the reissued patent is as follows:

"Having thus fully described the nature of my invention, what I claim therein as new and desire to secure by letters patent is the combination with a frame, nearly balanced on its supporting wheels and a tongue hinged to said frame, a lever connected to one, and projecting towards the driver's stand or seat on the

other, so that the driver, who is the sole conductor of the machine, may from said stand or seat raise or depress the cutters at pleasure during the operation of the machine, for cutting the grain or grass at any suitable height above the ground, or for passing over any intervening obstacles, substantially as described.

"I also claim in combination with the operative parts of a harvesting machine, a conveyor which first carries the cut grain across the machine, and then elevates it so as to discharge the grain into the bed of a wagon driven alongside of the machine, when the conveyor frame is connected to the bed by a flexible

joint, in manner and for the purpose described."

No objection has been found to the claim under the original patent, and although the claim under the reissued patent is nelarged, yet its scope does not go beyond what was contained in the original patent; some unnecessary restrictions of the original patent are removed, and the two claims under the reissue embrace features to which Mr. Haines seems to have been fairly entitled as the original and first inventor.

Pending the application of Haines for a reissue, an interference was declared with an application for reissue, by George H. Rugg, on the subject-matter involved in the first clause of Haines' claim, and a decision rendered in favor of Haines as the first inventor.

The matter was subsequently submitted to the court on the

question of infringement, and decided in favor of Haines.

The subject of this claim is that to which the remonstrants seem mainly to direct their opposition; but thus far no sufficient objection has been found, and although every feature of this claim may be found to have been separately used prior to the alleged invention of Haines, no harvesting machine has been clearly identified as containing such a combination as is found in that of this applicant for extension.

It is complained by the opposing parties that Haines puts a construction upon his claim so broad as to interfere with parties

not using the invention.

This would seem to imply an assent to the claim, if correctly interpreted.

To set this matter at rest, however, Mr. Haines has filed in this Office a disclaimer, in the following words:

"While on this point of my patent, and to set forever at rest, the matter of broad construction of my first claim, and which will effectually answer the greater part of counsel's argument, of the 5th inst., I will say, that, notwithstanding all that may have been said and done heretofore in favor of the first claim in my invention, extending to and covering hinged tongues, with levers, attached to harvesting or mowing machines when the teams were harnessed in front of the machine, and drew said machines after them, I now disclaim attaching any such meaning hereafter to my said first claim; but do declare that, the said first claim in my patent now sought to be extended is only valid when applied to harvesters or mowers that are driven in advance of the teams that propel them."

The claim is for a combination of certain specified parts substantially in the manner described; and as these parts have not been found so combined prior to the invention of Haines, his claim must be admitted.

It is worthy of note in this connection, that under the extended patent of Jonathan Read, originally granted in 1842, a reissue was granted August 17, 1856, in six divisions, in one of which, marked D, a claim was allowed in language nearly identical with that of Haines.

I have examined carefully the original papers and patent of Read, and find no such combination as that claimed under this division of his reissue.

The frame is not "balanced," nor nearly so, and there is no "lever connected with one and projecting towards a driver's seat or stand on the other."

The lever is connected with the frame, and projects towards the driver's stand on the frame.

If similar language can describe dissimilar machines, then this is a case in point, for the difference between the two machines is too palpable to need further analysis.

The striking difference of arrangement apparent from an inspection of the drawings and models of these two machines may to some extent account for the fact that no interference was declared between Haines and Read.

As regards the question of usefulness to the public the report of sales establishes its merits in this particular, 1,328 machines having been sold since the commencement of the patent, a testimonial not unimportant as to the utility of the invention is candidly offered by the parties opposing the extension in the following terms:

"It is likewise admitted that Haines' machine can only be used

profitably by large farmers, which comprises but a small portion of the agricultural community."

The parties undoubtedly have had the best of opportunities for judging of the utility of the invention, and it is no disparagement to show that it is not successful for purposes to which it is not adapted.

If it can be used profitably by large farmers, it is adapted to a public necessity, and is so far useful.

In regard to the questions of remuneration and ascertained value of the invention, there is sufficient evidence that Haines has not been remunerated commensurately with the value of the invention to the public.

In the extensive grain-growing districts of the Northwest, and upon the Pacific coast, where Haines' Harvester has been introduced, it has been regarded as a much cheaper and more economical machine for harvesting grain than most others.

It is conceded, we believe, that such machines as his will cut more grain in a given time than ordinary machines; that it does away entirely with all binding, shocking and frequent handling incident to the use of a common reaper.

It thus saves much time—a valuable item in the harvest season—and saves expense in threshing, as so small an amount of straw is generally cut with the heads.

Mr. Haines estimates the invention worth to the public one million of dollars per year, which is undoubtedly extravagant; but I am forced to admit that it is of great value, and hence have come to the conclusion that, even admitting the amount charged by the remonstrants as the sum he has received, I am of opinion he has not received such compensation as the law contemplates that the inventor of a valuable improvement should receive.

The statement of Haines, which was duly filed, under oath, shows a balance in favor of the patent of only \$18,000, which is evidently too small, as he has charged losses and other items to the patent which should not have been thus presented in the account.

The estimates made by the opposing parties, from the evidence and various data, make the amount to be credited to the patent more than ten times greater than that made by Haines.

This great discrepancy arises from the different estimates put upon the cost of building, and the average selling price of the machines; and the opponents of the extension, in my opinion, have not appreciated, by even an approximate consideration, the time, trouble and expense of introducing a new machine, and one so different from most others used for the same purpose, into public favor and use.

Mr. Haines has presented and conducted his application, until recently, without the aid of experienced attornies; and while I am free to admit that he has not strictly complied with the letter of the rules of the Office in the taking of testimony, I conceive that he has honestly come within the spirit of the requirements of the law and the rules of the Office in presenting the facts of his case.

There is not the slightest evidence of intention of fraud on the part of the applicant, and it will scarcely be contended that the rights of a meritorious inventor, who has largely benefited the Country, should be deprived of the rights secured to him by law simply because he happens not to be an expert in technicalities of the rules of practice.

It has been the judicious and equitable practice of the Office to look over the want of conformity to the strict rules of the Office where inventors have themselves conducted their applications, and in no instance have I found a case more deserving of this liberality than the present one.

I have been the more liberal in granting extensions of patents in consideration of the decided action of Congress upon this subject, as shown in the law of 1861, which extends all patents granted since the enactment of that law three years beyond the time therefore allowed.

In reference to the broad construction which it is claimed has been assumed by Haines upon his first claim, it will be seen, in another part of his opinion, that he disclaims for the future any such construction, and he has now formally filed in this Office a full disclaimer of such construction; has paid the necessary fees, and thus limits his claims to the invention specifically described, and to a harvest machine.

It is therefore hereby ordered, that said patent be extended for the term of seven years from and after the third day of April, 1863.

D. P. HOLLOWAY.

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